

TECHNICAL GUIDANCE NOTE

FACILITATING EFFECTIVE 1-1 COACHING SESSIONS



SUMMARY
SLIDES



COACH TOOLS
AND RESOURCES



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1818 H Street NW, Washington, DC 20433

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Cover and interior design: Karim Ezzat Khedr and Danielle Willis, Washington, DC, USA.

CONTENTS

Acknowledgments	iv
Abbreviations	v
Overview	1
Highlights	3
Considerations for Contextualizing the Coaching Cycle	6
The Coaching Cycle in Detail	7
Foundations: Relationship Building	7
Step 1: Prepare	11
Step 2: Observe	12
Step 3: Facilitate 1-1 Session.....	15
Step 3a: Reflect.....	15
Step 3b: Feedback.....	18
Step 3c: Model	20
Step 3d: Practice	22
Step 4: Set Goals	23
Between Sessions: Ongoing Skills Application	25
Conclusion	27
Appendix A. Case Study and Literature Search and Selection Methodology.....	28
Appendix B. Dissemination Materials	30
References.....	31

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This revised version of the *Facilitating Effective 1-1 Coaching Sessions* Technical Guidance Note incorporates recommendations from a broad range of perspectives that were crowdsourced as part of an international public consultation. Specifically, this revised Note (1) clarifies the intended target audience, (2) includes a concise executive summary, (3) includes a revised coaching cycle that better responds to the needs in low- and middle-income countries, and (4) offers guidance on utilizing student assessments as part of the observation process. The team is grateful to the Varkey Foundation Network and BE2 for hosting consultations workshops in which individuals from multiple organizations provided guidance and feedback on the Note. The team also is grateful for the written comments received from Marj Brown (Roedean School, South Africa), Katherine Bullard (Global Partnership for Education - GPE Secretariat), Emma Carter (University of Cambridge), Jacobus Cilliers (Georgetown University), Joe Coleman (The College of New Jersey), Josh Goodrich (Steplab), Sara Hennessy (University of Cambridge), Asya Kazmi (Bill and Melinda Gates Foundation), Nora Klami (Finnish National Agency for Education), Carolina Küpper-Tetzl (University of Glasgow), Laura Mahajan (Charles Sposato Graduate School of Education), Koen Martjin Geven (World Bank Group), Marcela Marzolo (Fundación Educacional Oportunidad), Peps Mccrea (Ambition Institute), Benjamin Piper (Bill and Melinda Gates Foundation), Pauline Rose (University of Cambridge), Ricardo Sabates (University of Cambridge), Gabatshwane Taka Tsayang (University of Botswana), Tom Vanderbosch, (VVOB), Ramya Vivekanandan (Global Partnership for Education - GPE Secretariat), and Elaine Wilson (University of Cambridge).

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Abbreviations

doi	digital object identifier
EGRS	Early Grade Reading Study
ELOS	Brazilian institute focused on community-building
ERIC	Education Resources Information Center
ESSA	Education Sub-Saharan Africa
GN	Guidance Note
HIC	high-income country
HoD	Head of Department
INSET	in-service education and training
LMIC	low- and middle-income country
MoE	ministry of education
NGO	nongovernmental organization
PL	pedagogical leader
RCT	randomized controlled trial
RTI	Research Triangle Institute International
SD	standard deviation
TGN	Technical Guidance Note
TPD	teacher professional development
TTL	Task Team Leader (World Bank Group)

Overview

Research consistently shows that teachers are the most important school-based factor for student learning (Hanushek and Rivkin 2010). Providing tailored, practical, focused, and ongoing one-to-one (1-1) support to teachers through coaching has proven to be a promising way to facilitate teacher learning and improve teaching practices and student outcomes. Coaching is a form of professional development in which a pedagogical leader (PL)¹ develops a trusting, collaborative relationship with teachers and provides individualized feedback and professional support to teachers during 1-1 sessions within a repeated coaching cycle. Evidence from high-income countries (HICs) and low- and middle-income countries (LMICs) demonstrates that sustained 1-1 coaching can be effective. Nevertheless, the effectiveness depends on the quality of support provided (Kraft, Blazar, and Hogan 2018; World Bank 2021). This Technical Guidance Note is designed to guide policymakers to envision and understand what high-quality 1-1 coaching entails in practice so that they are equipped to design and implement relevant coaching systems in their local contexts. This Technical Guidance Note also can be used by Task Team Leaders (TTLs) to generate dialogue with their clients and to inform project preparation and supervision. Practitioners, such as PLs, may find this Note useful because it provides background information and research to inform and shape their practices and routines. However, this Note is not intended for practitioners' day-to-day use.

This Note builds on the *Structuring Effective 1-1 Support* Technical Guidance Note² by reviewing recent empirical and theoretical research *and* practical insights on how PLs can facilitate 1-1 coaching and provide high-quality support to teachers in LMICs. This Note maps the evidence base for the coaching cycle and identifies a “gold standard” for 1-1 support, including the key steps in the cycle; how PLs can facilitate the full cycle at quality; and why particular actions are important for a program's success. This Note is informed by an evidence review of literature on teacher professional learning, coaching, and mentoring,³ with a focus on LMICs. The review is supplemented by research from HIC settings when research from LMIC contexts was not available and its applicability in LMICs was carefully considered.

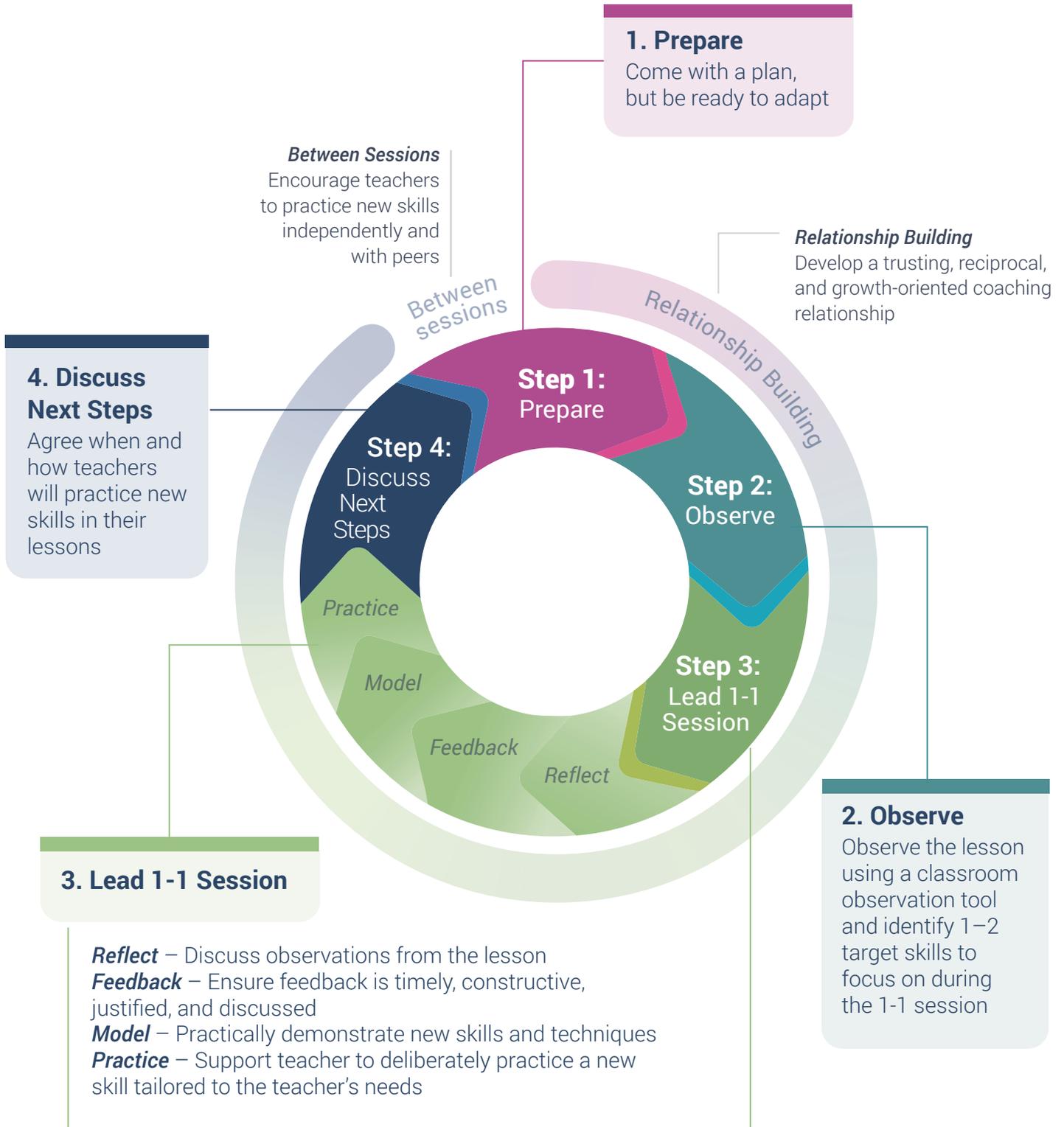
This Note starts by highlighting important contextual factors that policymakers should consider when designing 1-1 coaching programs. It then provides in-depth evidence for each step in the coaching cycle. Case study examples and research-informed implementation tips are shared throughout to help policymakers consider how parts of the cycle can be operationalized in their contexts, depending on the levels of financial, material, and technological resources available and levels of structure provided to PLs and teachers

1. Here, “PL” refers to any individual who provides ongoing support to teachers. This role can be filled by a variety of placeholders; however, it is commonly filled by a coach. Individuals with a variety of backgrounds can fill the role of PL, including specially trained master teachers, researchers, principals, pedagogical advisors, school support officers, and inspectors (Darling-Hammond, Hylar, and Gardner 2017)..

2. The *Structuring Effective 1-1 Support*: A Technical Guidance Note advises policymakers how to structure the delivery of ongoing support to teachers along a spectrum that varies depending on the PLs' level of expertise and the support provided to them.

3. Given the substantial overlap between coaching and mentoring, such as the importance of feedback and collegial reflection, literature on mentoring is included. However, PLs typically are education specialists who are not based in a particular school but periodically visit teachers and schools to conduct 1-1 coaching sessions. In contrast, a mentor tends to be an experienced or senior teacher based in a school who provides regular collegial support to teacher mentees. This relational difference is notable. For example, PLs may develop and sustain rapport with teachers differently than would a school-based mentor. This Note draws primarily on coaching literature but integrates insights from mentoring literature in which relevant similarities in the roles exist.

Figure 1. The Coaching Cycle



Highlights

Coaching programs are designed to facilitate teacher learning and improvements in teaching practices, ultimately to support student learning. According to our review of research literature and 6 evaluated programs (Appendix A) from across the world, coaching programs most often benefit teachers and students when 1-1 relationships between PLs and teachers are trusting, supportive, and growth-oriented; and are guided by the 1-1 coaching cycle. The coaching cycle offers an evidence-informed model with which policymakers can work to develop and implement effective 1-1 coaching programs in their local contexts.

Although the focus of the coaching cycle will vary depending on teachers' needs and the program goals, 1-1 coaching sessions typically follow a repeated series of steps; occur monthly throughout a school year; and are tailored, focused and practical. The 4-step coaching cycle (figure 1) illustrates what happens during and between 1-1 coaching sessions. Table 1 brings the coaching cycle to life through case study examples of how the cycle has been applied in various programs.

It is important to note that coaching programs vary in the degree to which they are structured. Structure refers to guidance given to PLs on the frequency and/or order of observations and feedback sessions. Such guidance includes tools that help PLs observe, facilitate reflection, provide feedback, and record their interactions with teachers. The key difference among these programs is the capacity of the PLs in the system.

Education systems with a limited supply of highly skilled PLs often start at the more structured end of the support continuum and move toward increasingly autonomous and tailored models.

1. In systems in which 1-1 support is introduced for the first time and PLs may have limited prior experience, supporting PLs to visit teachers consistently may be the first step in building quality 1-1 support.
2. Over time, these systems may adopt a highly structured support model that uses scripted teaching and coaching materials. Highly structured support models typically are used in contexts in which PLs have limited expertise.
3. Contexts with higher PL capacity may adopt a low-structured support model that relies on PLs who demonstrate deep expertise in relevant pedagogical and content knowledge.

Regardless of the degree of structure, all forms of coaching are designed to *support* teacher development as teachers engage in a process of change with a trusted PL who supports their professional development.

Table 1. High-Level Description and Case Studies of 1-1 Coaching Cycle

Program	Relationship Building A trusting and supportive coaching relationship rooted in shared goals, open communication, and clear expectations is critical to facilitate teacher learning and change. How this 1-1 relationship is established initially sets the tone for the entire coaching program. Before their first 1-1 coaching session, PLs should reflect on their role, identity, and expectations and consider how and when they will build a foundation of rapport and trust with teachers so that the PLs are perceived as mentors—not inspectors. When first working together, PLs and teachers should spend time getting to know each other, sharing and discussing professional experiences, interests, and challenges; and developing shared “ground rules” and a commitment to trusting, reciprocal, growth-oriented.						
	Step 3: Lead 1-1 Session Directly following a classroom observation, the PL and teacher meet in a safe and comfortable environment to engage in the 1-1 coaching session.						
	Step 1: Prepare Before conducting the 1-1 coaching session, the PL should review previous observation data, the teacher’s goals, and any relevant information related to the teacher’s learning. If time and resources are available, the PL can build rapport by briefly checking in with teachers via SMS or a phone call before the observation. Check-ins help the PL gather relevant updates and review the teacher’s goals for the 1-1 session.	Step 2: Observe The PL observes the teacher’s lessons to understand what is happening in the classroom and inform the focus of the 1-1 sessions. The observations can offer concrete examples from the teacher’s lessons that can be reviewed, discussed, and analyzed; and serve as a starting point to address challenges and opportunities for growth in a contextually appropriate way. If possible, these observations may be complemented by brief student assessments to provide insight to student learning. When the PL is unable to conduct in-person lesson observations, the teacher can send videos of their lesson so that the PL can provide feedback remotely.	Step 3a: Reflect The PL starts the 1-1 session by facilitating reflection and dialogue about the teacher’s experiences and perceptions of the observed lesson. The reflection step is a critical period for the PL to support the teacher’s thinking and insights on their practice and how it affects student learning. The PL can use a variety of classroom data to facilitate reflection including observation notes, videos of the lesson, and/or student work or learning data.	Step 3b: Feedback The PL should provide clear, constructive, and supportive feedback to the teacher. Moreover, the PL should make the structure for feedback explicit so that the teacher knows what to expect. The PL first should provide meaningful positive feedback with concrete examples before introducing 1 or 2 areas for focused improvement. Before translating the feedback into applied practice, the PL should provide time for the teacher to discuss and reflect on the feedback.	Step 3c: Model Without a clear image of what ideal practice looks like, the teacher could find it difficult to translate theoretical feedback into practical change. PLs can support teachers to develop new skills by modeling during the 1-1 session or showing videos of ideal practice. Modeling demonstrates behavioral expectations and helps the teacher translate abstract principles into concrete strategies and actions. When modeling, the PL should break complex behaviors into specific steps and verbalize their thinking and decision-making clearly to the teacher.	Step 3d: Practice Effective coaching requires the teacher’s active engagement with, and application of, new learning and strategies. One of the best ways to actively engage the teacher is through real-time deliberate practice supported by the PL. The PL should design tailored and scaffolded practice activities that support the teacher and give them an opportunity to apply new practices. While practicing, the PL should ensure that the teacher understands the concept while slowly shifting the responsibility to the teacher.	Step 4: Discuss Next Steps At the end of the 1-1 session, the PL and the teacher should revisit their goal and decide whether they want to keep working toward the goal, adjust it, or focus on a new goal in the next 1-1 session. Adjustments can be made based on insights from the observation and the 1-1 coaching session. Before leaving the 1-1 session, the PL and the teacher should discuss and agree on next steps, including the time and date for the next 1-1 session; when and how teachers will practice and work toward their goal; and what support is required from the PL.
	Between Sessions: Ongoing Skills Application After each 1-1 session, teachers should engage in ongoing practice and reflection individually, and—depending on material, technological, and capacity resources—collaboratively with their colleagues and school leaders. In some contexts, PLs can maintain light-touch digital and remote support with teachers between 1-1 sessions by sharing resources, answering questions, and reviewing teacher practice or reflections via SMS, phone call and/or email. These ‘in-between’ activities are critical to sustaining teacher motivation and learning.						
Early Grade Reading Study (EGRS) I and II (In-person arm) <i>Country:</i> South Africa <i>Grade:</i> Primary <i>Focus:</i> Literacy <i>Structure:</i> High (Cilliers and others 2019; Cilliers and others 2021)	At the beginning of each coaching session, the PL begins by recapping what they covered in the last session. After observing all the teachers in a school, the PL may convene a needs-based workshop, in which the PL reinforces specific skills with which most teachers struggle.	The PL uses a classroom observation and feedback tool , which includes a complementary feedback tool, to observe the teacher. The PL observes the teacher for the full length of the lesson.	Following the classroom observation, the PL starts reflective discussion by offering the teacher prompts. The PL also will ask probing “why” and “how” questions to facilitate a meaningful reflection session.	The PL selects three skills for the teacher to improve. To a certain extent, data from classroom observations inform what is covered in the coaching session. However, most teachers start with classroom management and eventually work toward literacy-specific skills.	During the coaching session , the PL models specific skills for the teacher. In addition, during the observation, the PL will co-teach the lesson if the teacher requests it. However, the PL is not supposed to interrupt the teacher as they are instructing unless explicitly requested.	The PL and teacher first typically practice classroom management and student engagement strategies together. They then practice how to facilitate group guided reading.	At the end of the coaching session, the PL and teacher set three shared goals together. The teacher and PL then sign the observation form, which includes the agreed next steps and areas that the teacher will work to improve on before the next visit.
Tusome Early Grade Reading Activity (EGRA) <i>Country:</i> Kenya <i>Grade:</i> Primary <i>Focus:</i> Literacy <i>Structure:</i> High (Piper and others 2018)	The PL uses a tablet to review what they covered in the last session, enabling the PL to easily recall previous visits and gauge the extent to which teacher behavior has changed over time.	The PL uses a classroom observation tool that helps capture whether the teacher effectively implements the teacher’s guides . This tool is accessible to the PL through the Tangerine software . The PL observes the teacher for the full length of the lesson. Following the observation, the PL collects information on the student/book ratio and selects three students to conduct a series of short, content-related assessments.	The PL meets with the teacher to provide feedback either directly after the lesson or after school, depending on the teacher’s schedule and preference. The PL begins the 1-1 session by asking the teacher a series of questions: “How did it go? What went well? What did not go so well?”	The Tangerine software helps the PL by synthesizing the data from the classroom observations and student assessments, recommending 2–3 skills the teacher did well and identifying 2–3 areas to improve.	The PL sometimes models a portion of the lesson demonstrating a specific skill the teacher struggled with. On occasion, the PL models a portion of the lesson in front of the students.	The PL is strongly encouraged <i>not</i> to re-teach any content that the teacher already has covered in class because re-teaching is distracting and can undermine the teacher’s authority. Instead, PLs are encouraged to practice these skills with the teacher in private.	The PL and teacher follow the goals outlined in the teacher’s guides, rather than developing a goal collaboratively. Relatedly, PLs and teachers follow the next steps and schedule for the next 1-1 session as outlined on the tablet.
Un Buen Comienzo <i>Country:</i> Chile <i>Grade:</i> Pre-K and Kindergarten <i>Focus:</i> All subjects <i>Structure:</i> Low (Leyva and others 2015)	The teacher and PL discuss an area that the teacher wants to improve. In each subsequent coaching session, the PL begins by asking the teacher what they did to improve that skill. The PL continues to review the skill in subsequent coaching sessions until the teacher has mastered it.	The teacher is observed two times a month. During the first session, the observation occurs in person. During the second session, the teacher sends the PL video footage of a lesson. The PL watches the video and uses a classroom observation tool to review the video. The PL observes the teacher for 10–20 minutes of the lesson.	After reviewing the video, the PL uses a video feedback rubric to send written feedback to the teacher ahead of an in-person session. When the teacher and PL meet, they re-watch the video together, referencing the classroom observation tool. The video footage helps the PL facilitate reflection because they can stop the video at specific points to prompt the teacher to reflect.	The PL focuses on 3 skills the teacher did well and 1 skill the teacher can improve.	During the coaching session , the PL uses high-quality instructional videos to demonstrate the skill with which the teacher struggled. The PL does not model the skill for the teacher.	The PL and teacher watch the exemplary video together, practice it, and plan when the teacher will apply the skill in the future.	The PL and teacher set shared goals and determine the next time to meet. Each month, the PL conducts 1 in-person and 1 fully virtual visit with the teacher. To coordinate the in-person visit, the PL and teacher decide what time, format, and other details work best for the teacher’s timetable.

Considerations for Contextualizing the Coaching Cycle

The coaching cycle provides a replicable blueprint for facilitating 1-1 coaching sessions. Evidence from across contexts highlights the importance of each step of the coaching cycle. Thus, if the PL visits a teacher, there is great value in ensuring that the visit is of high quality and provides opportunities for all steps of the cycle, including reflection, feedback, modeling, and practice. However, practical considerations may require that coaching interventions be adapted to meet unique contextual needs. When designing and supporting the implementation of a 1-1 coaching cycle, policymakers should consider the following factors:

- ✓ Teachers' goals, capacities, and locally identified needs
- ✓ PLs' backgrounds and training
- ✓ Need for low- versus highly structured support
- ✓ Existing education landscape and policies
- ✓ Access to technology and teachers' digital competencies
- ✓ Logistical constraints (such as distance between schools, number of PLs available).

Coaching programs should be linked to teachers' needs and goals to ensure three conditions: (a) that teachers have the time and capacity to engage in such a program; (b) that the program helps to address a genuine, self-identified problem of practice or achieve a goal that teachers' care about or see as important in their local settings (Edwards 2010; Kennedy 2016); and (c) that the program has an appropriate degree of structure. These interventions should be strategically embedded in national and/or local in-service teacher training programs, ensuring teachers are allocated time during the working day to participate, and designed to support teacher career development, such as ensuring the intervention builds upon and complements existing professional development programs (Kwok and others 2022) teachers earn professional learning credit and qualifications as they participate and progress.

PLs come with a diverse set of backgrounds, experiences, and skills. Coaching programs should be designed to build on and advance PLs' experience and capacities. For systems in which 1-1 support is first introduced and in which PLs may have limited prior experience, supporting PLs to visit teachers consistently may be the first step in the reform process. In these settings, policymakers may want to focus on reforms that increase the number of visits before focusing on improving the quality of the visit. Visiting the teacher consistently can create opportunities for the PL to develop rapport and trust with the teacher and signal the importance of the program. Moreover, consistent visiting may motivate behavior change and serve as an important foundation before systems establish highly structured programs, and eventually, low-structured programs (Piper and others 2018).

Regardless of the capacity of the PLs in their system, policymakers are tasked with creating the conditions that enable PLs to be active and ongoing learners. PLs can benefit from continuous support, feedback, and opportunities for professional development (Bean 2014; Galluci and others 2010). Coaching programs should take into account PLs' needs and provide learning opportunities for PLs that are tailored, active, ongoing, and on-the-job (Bruno, Costa, and Cunha 2018; Galluci and others 2010; Kotze, Fleisch, and Taylor 2019). These opportunities should help PLs develop deep pedagogical content knowledge as well as interpersonal, communication, and leadership skills (Bean 2014). In contexts in which teachers may feel comfortable providing occasional (potentially anonymous) feedback to PLs about the quality of their 1-1 support, policymakers can create local monitoring systems that generate and share such feedback with PLs. Teacher feedback can be a valuable source of on-the-job learning for PLs (Galluci and others 2010) and present opportunities for them to model ways to incorporate professional learning and feedback in their practice.

Last, when supporting the development and implementation of coaching interventions, policymakers also should consider the wider policy, professional development, and education systems (Kent, Kochan, and Green 2013). Understanding and aligning new coaching programs with existing parameters to which teachers are held accountable—such as curriculum expectations or student performance on standardized assessments—can help ensure instructional and policy coherence and avoid contradictory teaching and learning goals that lead to inaction or ineffectiveness (Haßler, Hennessy, and Hofmann 2020; Liao and others 2021). Guaranteeing that these contextualizing conditions are met can improve the chances of program buy-in, uptake, and sustainability.

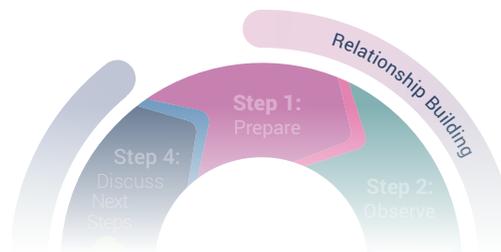
The Coaching Cycle in Detail

The following sections take a more nuanced look at the coaching cycle including how PLs can build a foundation for the coaching relationship and facilitate each step of the 1-1 coaching session with specific research-supported actions. The Note then describes how teachers can continue to deepen their learning through regular practice and reflection between each 1-1 session.

Each phase of the cycle and its corresponding strategies are underpinned by the four *Coach* guiding principles. Coaching should be (a) tailored to teachers' needs; (b) based in active learning, reflection, and deliberate, or targeted, practice; (c) focused on specific professional development goals and skills; and (d) repeated over time with frequent cycles of observations, feedback, and support.

Foundations: Relationship Building

The quality of 1-1 coaching relationship is critical to facilitate teacher learning and change. High-quality 1-1 relationships are trusting; supportive; and rooted in shared goals, open communication, and clear expectations. Building a strong 1-1 relationship takes time and effort and starts even before the PL meets the teacher.



Before the first interaction with teachers

PLs should critically reflect upon their background, position, expectations, and the ways in which their experiences, beliefs, and identities could affect the 1-1 relationship. Wider cultural, ethnic, and socioeconomic dynamics can influence how PLs and teachers perceive and interact with each other (Bartanen and Kwok 2021; Hoffmann and others 2015). For example, large age gaps in which the PL is significantly older or younger than the teacher, local historical power hierarchies, gender disparities, preferential language, and/or opposing personal or political views may affect how the PL and teacher perceive each other's expertise or authority, how they share and communicate, and how they offer and respond to feedback (Ludecke and others 2022; Meyer 2015). PLs should be sensitive to these dynamics and should be encouraged to remember that they, too, are learners who can grow alongside teachers through the 1-1 coaching relationship. PLs benefit from remaining curious and should be ready to adapt their practice in ways that foster an increasingly reciprocal, trusting, and mutually transformative 1-1 relationship. Policymakers support PLs' critical reflection and personal preparation for the 1-1 coaching relationship by ensuring that PLs have time allocated for reflection and access to preparatory and ongoing professional development that targets and supports their skill development and growth (Bruns, Costa, and Cunha 2018; Galluci and others 2010).

PLs also should be thoughtful about how they initially establish 1-1 relationships with teachers because the first few interactions can set the tone for the entire coaching intervention. PLs should consider where and when they will meet with their teachers, being mindful of how they can use these initial interactions to build a foundation of rapport and trust. Coaching programs often start with an in-person teacher training during which PLs lead professional development workshops with groups of teachers and review relevant content, skills, and other information before starting the 1-1 coaching program. Initial introductory training can range from a half-day to a week or more, providing opportunities for PLs and teachers to establish familiarity and collegial relations in the comfort of a group setting before engaging in individualized feedback and practice sessions (Bean 2014).

Other programs may assign PLs to schools and teachers with whom the PLs have existing relationships. For example, Heads of Departments (HoDs), who already are based in the same school as teachers and function as their supervisors, can serve as PLs in 1-1 coaching. However, as HoDs, these PLs normally may assume directive or officious roles that can conflict with the non-judgmental and non-evaluative role of coaches. In these situations, PLs should reflect on their existing relationships and dynamics to determine the extent to which additional relationship- and trust-building is needed before starting the 1-1 coaching sessions.

During the first 1-1 session

The first PL-teacher meeting, and each subsequent 1-1 session throughout the coaching program, provides opportunities to:

- ✓ Discuss, negotiate, and clarify roles and expectations
- ✓ Share relevant experiences, motivations, and challenges that might influence the focus of the 1-1 coaching sessions
- ✓ Identify teachers' self-identified needs, challenges, or any pressing concerns faced in their teaching practices
- ✓ Develop rapport, open lines of communication, develop a shared ethos, and agree "ground rules" and ways of working together
- ✓ Review and/or set shared goals for the first 1-1 coaching session.

PLs should serve as a mentor, motivator, and confidant—not an inspector. For teachers to engage in the vulnerable process of change that often includes overcoming fear, taking risks, trying new practices, making mistakes, and being open to and incorporating feedback, they must feel well supported and safe with their assigned PL (Alsofrom 2018; Cilliers and others 2021; Keiler and others 2020; Orr and others 2013). PLs who serve as trusted mentors can enable teachers to feel comfortable in reflecting on their practice, asking questions, and receiving feedback. Such PLs enable teachers to grow, resulting in tangible benefits for students' learning (Cilliers and others 2021; Kotze, Fleisch, and Taylor 2019; Sider 2018). If a PL is simultaneously tasked with the roles of both coach and inspector, the coaching relationship may be undermined by role confusion and compromise trust. Moreover, when teachers receive excessive amounts of directive feedback, they feel scrutinized instead of supported, thus eroding rapport and trust (Castanheira 2016).

PLs should explicitly communicate and embody their role as a "mentor" and establish this distinction early in the relationship. Knowing that the PL is a supportive colleague and resource to improve professional practice, rather than an inspector or evaluator, can help to counter any initial hesitation or discomfort that a teacher may feel about being observed or receiving feedback (Alsofrom 2018). Explicitly distinguishing their role as a mentor also helps the PL to establish clear roles, set expectations, and cultivate an ethos of learning and collaboration within the 1-1 coaching cycle. Each teacher deserves a trusted champion to go to for support, and the PL should make clear that the teacher can trust and rely on them.

PLs can develop and strengthen rapport by identifying shared experiences and goals with teachers and opening lines of communication (Castanheira 2016). At the start of the coaching program, PLs should dedicate time to engage in a relaxed, open-ended conversations about general teaching motivations, goals, and experiences. These initial conversations can help PLs identify areas of commonality and communicate a nonjudgmental, non-evaluative approach that facilitates an atmosphere of trust, safety, and teacher motivation for growth (Kotze, Fleisch, and Taylor 2019). This approach also generates a collegial connection (Kennedy 2016) that inspires collaborative professionalism in which PLs and teachers transform teaching and learning together (Hargreaves and O'Conner 2018).

During the first conversations and beyond, PLs should establish and maintain open communication with teachers by asking questions, listening attentively, and engaging in ongoing dialogue. Asking interested questions demonstrates care and a desire to listen to teachers and to take their perspectives and experiences seriously (Alsofrom 2018). Taking time to ask thoughtful questions also can help PLs be aware of insecurities or feelings of inadequacy that teachers may be experiencing, especially at the start of a new professional learning experience (Kotze, Fleisch, and Taylor 2019). PLs can use this information to tailor their feedback. It also helps teachers see feedback as an opportunity to grow, feel comfortable being vulnerable, and embrace support to shift their instructional practices (Alsofrom 2018). Ultimately, creating open lines of communication focused on listening, sharing, and understanding each other can help both teachers and PLs feel comfortable when engaging in reflective, constructive, and critical dialogues in the 1-1 coaching sessions (Kho, Khemanuwong, and Ismail 2020) (Spotlight 1).

PLs and teachers should co-create and uphold shared norms—or "ground rules"—that guide how they relate to each other and engage in reflective and constructive discussions. Developing shared, discussion-based, and relational norms is grounded in extensive rigorous research on student learning (Mercer, Dawes, and Kleine-Staarman 2009), which can inform PLs' efforts to support teachers' learning (Bakkenes, Vermunt, and Wubbels 2010). PLs and teachers can develop shared norms by explicitly discussing the ethos, or quality and dynamic, of the relationship that they would like to cultivate (Alexander 2020). For example, PLs and teachers may want a respectful, open, reflective, encouraging,

and growth-oriented ethos. PLs and teachers then can brainstorm shared norms about how they can work together to bring this ethos to life. Brainstorming could come up with “We listen carefully to one another”; “We are honest with each other in a respectful constructive way”; “We give one another time to think”; or “We share our perspectives but also are prepared to modify our perspectives in light of one another’s questions and comments.” PLs and teachers can draw on these agreed “ways of working” throughout the 1-1 coaching sessions to cultivate their desired ethos, especially during any moments of debate or disagreement. Both PLs and teachers also can refer to the ground rules throughout the coaching cycle and partnership to regularly review that both parties are following the norms they agreed together. When developing ground rules, PLs should remember that existing cultural norms and power dynamics may make it difficult for teachers to share their views comfortably and freely; as a result, PLs may need to explicitly invite teachers to contribute at least one or two ideas for ground rules.

PLs should take time to learn about and discuss the teacher’s professional learning needs with the teacher and then agree upon or review a focus and goal for the 1-1 coaching cycle. Ensuring that teachers’ professional needs are shared, discussed, and guiding coaching sessions can help teachers understand how coaching helps them address their practical challenges—an important feature of effective teacher professional development (Edwards, 2010; Gibbons and Cobb 2017; Kennedy, 2016). Identifying teachers’ needs and stage of development can help PLs assume the most appropriate role within the 1-1 relationship. For example, PLs may assume a “role model” position with novice teachers, who may benefit from building skills on how to establish classroom rules and routines and, from observing a PL, model these skills. In contrast, PLs may assume a “trainer” or “critical friend” role for teachers with greater experience who can benefit from advancing their skills about how to target student learning (Wilson 2013). Discussing teachers’ needs before starting the 1-1 coaching program also can help to inform and establish shared goals and a cycle of “deliberate practice.” Deliberate practice is high-quality, intentional, and scaffolded practice in which teachers are supported by a PL to build expertise over time (Ericsson and Harwell 2019; Ericsson, Krampe, and Tesh-Römer 1993). Deliberate practice is a particularly powerful professional development activity because PLs provide feedback and training targeted to the teachers’ current capabilities and scaffolded for continual improvement toward specific goals (Ericsson and Harwell 2019; Ericsson, Krampe, and Tesch-Römer 1993).

In low-structured programs, a focus has not been pre-set by the intervention, and the PL and teacher can determine the focus on the 1-1 coaching intervention, PLs can facilitate a dialogue with the teacher to identify the most salient professional learning needs. In highly structured programs, although the focus of the 1-1 session may be pre-set, PLs can help the teacher understand why this focus has been predetermined and ask questions to help the teacher reflect on the ways that the focus area addresses a challenge they face in their classrooms. Helping teachers to see that the coaching focus area addresses a problem of practice is especially important because when teachers do not see the relevance of an initiative, over time, they may lose motivation and disengage (Kennedy 2016). PLs can prompt teachers to consider how the pre-set focus of the 1-1 intervention could play out in their own classrooms, based on their teaching experiences and understanding of classroom activities, students’ needs, and cultural norms (Bean 2014).

IMPLEMENTATION TIP

PLs can build rapport by asking probing questions about teachers’ professional interests, motivations, and values. For instance, PLs may ask:

- Where are you from? How did you get into teaching?
- What do you like to do outside of work?
- What do you enjoy most about teaching?
- What is the most difficult aspect of your job?
- What do you hope to get better at in your teaching?
- What do you wish you could change in your classroom?
- What other professional development experiences have you had?
- What did you find most valuable in those other experiences?
- What was most challenging?

PLs also can ask questions to identify collective school norms (shared among the teaching staff and leaders) and assumptions about the school’s students. For instance:

- What are your students like?
- Can you tell me more about your school culture and your students’ backgrounds?
- What is it like to be a teacher in your school?
- How do you work with your colleagues?
- How would you describe the school’s culture?

After discussing professional learning needs and the 1-1 cycle focus, PLs should discuss and establish clear expectations of how the 1-1 coaching cycle will be facilitated, such as the role that PLs will take during classroom observations and how and when PLs will provide feedback and support (Bean 2014). Negotiating and setting expectations in collaboration with teachers about when findings from classroom observation will be shared with principals, school administrators, or other teachers is essential to mitigate ambiguity. Expectations for teachers, such as the need to practice and reflect independently between 1-1 sessions, also should be discussed to ensure teachers understand the importance of their agency—their ability to make decisions about and directly affect their own participation, growth, and change in practice—and their active role in their professional development (Darling-Hammond, Hyler, and Gardner 2017).

While setting strong foundations for the 1-1 relationship is important, it is equally important that PLs continuously deepen rapport and support teachers' confidence at each stage of the 1-1 coaching cycle. Each interaction between the PL and teacher creates opportunities for connection, learning, and growth. Strategies for taking advantage of each interaction and sustaining a strong relationship are integrated throughout the following discussion of the coaching cycle: from the classroom observation and reflective 1-1 session to shared and independent practice.

SPOTLIGHT 1. Breaking the Ice and Building Rapport: Getting to Know Teachers

When PLs take the time to get to know teachers as individuals and professionals, PLs can foster a foundation of rapport and learn highly relevant information about the teacher, school, and local norms (Kent, Kochan, and Green 2013). This information can significantly influence how PLs lead 1-1 sessions and work with teachers to change their practice. Local assumptions and beliefs about teaching and learning affect what is viewed as “normal” and acceptable practice by classroom teachers, students, parents, and other stakeholders. For individual teachers change often is difficult because these norms, assumptions, and beliefs are well established and widely held, but, due to their familiarity, are commonly unconscious and unspoken. Encouraging teachers to make these norms explicit early in the relationship can help PLs understand how existing norms function as either facilitators or barriers to change. Bringing these norms to the surface also can inform how PLs facilitate the 1-1 coaching cycle to ensure that change is substantial and sustained (Hofmann and Ruthven 2018). PLs can start the conversation and get the most out of these initial connections by:

- ✓ Introducing themselves and sharing information about their personal and professional backgrounds.
- ✓ Asking probing questions about teacher's professional interests, motivations, and values.
- ✓ Asking probing questions to identify collective school norms (shared among the teaching staff and leaders) and assumptions about the school's students, such as the extent to which students' learning capabilities or talents are “fixed” or can be improved (Jackson, Gibbons, and Sharpe 2017; Patrick and Joshi 2019). These norms are known to influence current teaching practices and the extent to which teaching practices can be improved (Rainio and Hofmann 2021; Morcom and MacCallum 2022). PLs' asking about these school norms can develop rapport and provide important information to guide 1-1 sessions.
- ✓ Using legitimization strategies when asking probing questions, such as “Some other teachers have found it difficult to implement new practices after professional development workshops” or “in my own classroom, I struggled with” These kinds of statements make it easier for teachers to share both the strengths and challenges they may experience in their professional lives and can counteract teachers' desire to respond to questions in a way that will be viewed favorably by the PL or others (Haßler, Hennessy, and Hofmann 2020).
- ✓ Identifying shared interests, experiences, or values that emerge from initial introductions and conversations.
- ✓ Explaining the role of the PLs, emphasizing that they are there to support the teachers, not inspect or punish them.
- ✓ Introducing the ideas underpinning a growth mindset (Spotlight 2), thus emphasizing that the PLs' objective is to help teachers grow and that mistakes are part of learning.

Step 1: Prepare

PPLs should come prepared to each coaching session. Before conducting a 1-1 coaching session, **PLs should review previous observation data, the teacher's goals and areas for practice and improvement, and any additional relevant data related to the teacher's learning and development plan.** Refreshing the PL's understanding of the teacher's needs before the classroom observation can help the PL refine what they will pay attention to during the observation so that feedback, skill development, and areas for deliberate practice will be tailored to the teacher's priorities and needs (Ericsson and Harwell 2019). Planning and preparing also will help the PL focus more closely and thoughtfully on the teacher's real-time practice and learning, and less on logistics. This approach ensures that a teacher receives the PL's full attention and the highest quality of focused support during each 1-1 session.



While the PL's planning and ideas for skill improvement may help guide the 1-1 session, they should remain flexible.

Specifically, PLs should be ready to adapt if the teacher communicates vastly different needs or if the educational context has shifted substantially since the previous visit. Being responsive to the local environment and to the teacher can strengthen rapport and help the teacher see the 1-1 support as relevant to their priorities, further motivating the teacher's learning and growth (Edwards 2010).

The amount of time PLs spend on planning and preparation may vary, depending on how familiar the PL is with the teacher's progress. At the beginning of the coaching cycle when a PL is less familiar with the teacher, the PL may spend more time preparing for the 1-1 session (for example, 30 minutes). Once in the cycle, a PL may need less time as their familiarity increases and areas that need skill development are clearer. Alternatively, if a PL is using technological resources, such as tablet-based monitoring and data tracking systems in highly structured programs, preparation and planning may be less time consuming because the resources indicate the areas needing skill development based on previous teaching data from classroom observations. It's important to note, if such tablets are being used, applications should be designed with the user in mind, considering individuals with low digital literacy and settings with poor connectivity.

If there are time and resources before the 1-1 session, it can be valuable for PLs to check-in and briefly connect with teachers via SMS or phone call (Sailors and Price 2015). Check-ins can motivate teachers to engage with professional development (Moreno-Guerro and others 2020) and can help PLs confirm logistics, receive any updates that could influence the focus of the 1-1 session, and review shared goals for the coaching 1-1 session. For example, the teacher may let the PL know that they need to end class early to accommodate a period allocated for student examinations or the teacher may share information from their personal life that could affect their energy level and overall teaching. The PL should take these factors into account to build rapport and provide a supportive, relevant 1-1 coaching session that meets the demands and realities of the day-to-day school environment (Kho, Khemanuwong, and Ismail 2020).

IMPLEMENTATION TIP

In the virtual arm of the South Africa study, the PL is given a tablet to provide remote support to teachers. The tablet provides the means for the PL to check in with teachers more frequently than in-person visits via WhatsApp. The PL uses the tablet to schedule the coaching session calls so that teachers can plan accordingly. To keep track of all the teachers for whom the PL is responsible, the tablet assists the PL in creating an individual profile for each and providing tips for structuring each conversation with the teacher.

South Africa Reading Activity II

If there is additional time during a digital check-in, the PL also can review topics and goals from previous 1-1 sessions and support teachers to cultivate a positive mindset toward instructional change and growth (Spotlight 2). This review provides an opportunity for the teacher to recall, reflect and share progress on previous topics, strengthening and sustaining new learning and remembering that continuous growth is possible (Thomas, Knowland, and Rogers 2020). In these moments, the PL can set the tone for the 1-1 session and influence the extent to which the teacher feels comfortable and confident continuously trying new practices and learning from errors (Thomas, Knowland, and Rogers 2020). When the PL acts as a "champion" who

encourages the teacher and genuinely believes in their potential for growth, the PL helps the teacher stay motivated and focused (Kotze, Fleisch, and Taylor 2019).

SPOTLIGHT 2. Cultivating Positive and Growth-Oriented Mindsets in Teachers

The extent to which a school community or education system views talent and skill as acquired or fixed may directly affect teachers' beliefs and motivations (Hanson, Ruff, and Bangert 2016) and, as a result, influence teachers' agency, effort, and openness to change (Rainio and Hofmann 2021). Individuals who believe they can continuously improve have a growth mindset, while those who believe their capabilities are innate and limited have a fixed mindset. Some research shows that mindsets can predict motivation and achievement (Dweck 2006; Zeng and others 2019). PLs can help teachers to cultivate a growth mindset about their own development and that of their students (Seaton 2018) through all steps in the coaching cycle by:

- ✓ Identifying and explicitly discussing local institutional beliefs about teachers, learning, capabilities, and the wider teaching community
- ✓ Encouraging teachers to see themselves as learners and drawing attention to concrete examples of teachers' ongoing improvement and successes
- ✓ Praising teachers for their effort and commitment to improving their practice
- ✓ Supporting teachers to identify opportunities where they can exercise agency and direct how and the extent to which they improve
- ✓ Providing opportunities—in trainings and in day-to-day teaching—for teachers to try new practices and make mistakes
- ✓ Allowing teachers to constantly reflect on their practice and encouraging them to learn from mistakes
- ✓ Providing teachers with opportunities to discuss next steps and choose where to focus their energy, based on their own professional goals.

Note:



See this [video](#), which provides an actionable example of how PLs can promote a growth mindset with their teachers.

Step 2: Observe

PLs observe teachers' lessons to inform the focus of 1-1 coaching and practice sessions. These observations offer a foundation from which PLs can discuss specific problems of practice that individual teachers face, as a starting point to address challenges in a contextually appropriate way (Kotze, Fleisch, and Taylor 2019; Orr and others 2013). Classroom observations can help PLs to:

- ✓ Outline expectations for teachers based on a shared vision of what effective teaching entails
- ✓ Focus observations on the most relevant aspects of classroom learning that have been identified with teachers during check-ins
- ✓ Focus on feedback that they provide to teachers
- ✓ Keep feedback from becoming too subjective
- ✓ Indicate areas of improvement to facilitate goal-setting at the school and classroom level (Bruns, Costa and Cunha 2018).



PLs use classroom observation tools during observation sessions. Classroom observation tools help PLs to focus on and document concrete episodes and examples of teaching and learning practice (Spotlight 3) before moving to interpret teachers' practice and making recommendations for teachers' improvement. Examples documented in observation tools can be reflected upon, discussed, and analyzed later during the 1-1 session, especially when discussing more abstract teaching skills such as successfully problem solving or identifying and targeting students' misunderstandings. Observation tools also can help teachers develop a shared language and an understanding of what effective teaching entails. Some teachers have been shown to intuitively understand and monitor effective aspects of their practice, but

they may have difficulty articulating these practices (Hofmann and Ilie 2022). Observation tools can help teachers overcome this challenge when PLs review these tools with teachers prior to the observation and/or during the subsequent 1-1 session. The tools then become a stimulus for reflection to help teachers explicitly discuss and generate insights on aspects of their practice as well as the overall learning and change efforts (Bracq, Michinov, and Jannin 2019).

In highly structured programs, observation tools tend to be simplified. For example, PLs focus on specific aspects of the intervention, simple checklists to capture the presence or absence of specific teaching behaviors such as monitoring the use of teacher's guides (Bean 2014; Sailors and others 2012). This specificity can be especially important for PLs who have limited experience conducting observations and providing feedback. In low-structured programs, PLs use more open-ended observation tools, or a wide-lens strategy, that can be adapted to focus feedback on the teachers' needs (Gall and Acheson 2010). Here, PLs draw from check-in discussions and previous 1-1 sessions in which individual teachers and PLs established a shared focus or goal (Kho, Khemanuwong, and Ismail 2020). PLs and teachers then can engage in joint problem-solving to focus observations based on the agreed shared goals, such as focusing on a specific aspect of a lesson (Kennedy 2016).

In either type of program, these observations may be paired with student assessments, which can be an important tool for PLs and teachers to understand student learning. These assessments are particularly important for interventions tied to specific content, such as improving literacy outcomes (Piper and others 2018). Also important is to get a holistic idea of what is happening in the classroom, by collecting teacher and student-facing inputs. If possible, PLs should observe teachers and collect student assessment data from a small, random selection of students. If PLs do not have prior experience interpreting assessment data, they should be supported in interpreting this data and be given guidance on how to incorporate the results in the feedback that they provide to teachers (Piper and others 2018).

When the PL is unable to conduct in-person classroom observations, classroom video recordings can be used to provide remote feedback. When the PL is unable to conduct in-person visits, teachers can send videos of their instruction so that the PL can provide feedback remotely. In the Un Buen Comienzo program, teachers send a video of a full-length lesson to the PL. The PL watches the video and uses a classroom observation tool to jot down observations of each teacher's instruction that is shared with that teacher. In the Ceará Teacher Feedback and Coaching program, this remote feedback-sharing was carried one level up in which the PLs videotaped themselves giving feedback to teachers and sent the videos to their master trainers. Using this video footage, the master trainers provided written feedback to PLs ahead of their quarterly video-call meetings. This written feedback provided the basis from which master trainers structured advice to PLs on how to facilitate stronger 1-1 sessions with their teachers. This type of intervention is contingent on having the means to store and transfer video footage and cultivating a culture in which video recordings of teachers are normalized. If video recordings are not normalized, teachers may become self-conscious when recording themselves, disrupting their performance and instructional quality. In addition, awareness raising around cybersecurity is essential to ensure that these videos are used as intended and not for nefarious purposes.

After finishing the observation, PLs should briefly individually reflect on the observation, interpret the observation tool, and identify 1–2 target skills, or areas of specific, actionable feedback to be shared in the 1-1 session. During the observation, PLs should focus on paying attention to the lesson and documenting clear examples of teachers' practice and students' participation. If the PL tries to interpret while observing the lesson, the PL may experience cognitive overload and miss or misrepresent a critical moment in the lesson (Sweller, van Merriënboer, and Pass 1998). Only after the observation should the PL review the observation tool, interpret the observations, and consider areas to discuss and practice with the teacher in the 1-1 session. It also is important that the PL focus on only 1–2 target skills or areas for feedback, even though the observation tool may capture multiple aspects of teaching. Highly structured programs

IMPLEMENTATION TIP

Some teachers can be hesitant to be observed by PLs, resisting the experience or deflecting the opportunity (for example, "No I don't have any problems"). To overcome this hesitancy and build comfort and rapport, PLs can use warm, complimentary, and inviting statements and questions:

- I've heard that you have some very good practices that I would like to see and learn from
- Would you mind demonstrating a lesson? I am still learning and I would love to learn from you.

These statements can help show teachers that they will not be evaluated or judged and that the PLs supporting them also are continuously learning.

often contain explicit guidance on how to select these target areas (Piper and others 2018). Focusing on a key area that often has been agreed previously with the teacher helps both PL and teacher stay focused on making incremental progress; builds and sustains the teacher's confidence; and prevents both PL and teacher from experiencing cognitive overload, which can stymie progress (Feldon 2007).

SPOTLIGHT 3. Tips for Conducting Classroom Observations

The first step to improve the quality of teacher-student interactions is to understand the quality of teacher-student interactions. Observation tools are a valuable means to investigate and begin to understand teacher-student interactions. At a system level, policymakers can use classroom observation tools to better understand the quality of teacher-student interactions. To do this at scale, policymakers should use tools that are psychometrically and content validated, meaning that the tools have been tested and found to (a) actually measure what they are designed to measure and (b) measure all aspects of the practice or behavior. For example, policymakers will want to adopt a tool that captures the many strategies that a teacher uses to facilitate students' critical thinking, rather than a tool that captures only a single strategy to facilitate students' critical thinking, such as whether teachers asked students open-ended questions. Validated tools typically include an observation sheet to document key behaviors and practices and a complementary manual that describes the tool's components in detail. Conducting quality observations is a skill. Therefore, PLs should be trained on and practice how to observe lessons (Bartanen and Kwok 2021). Some validated observation tools have a specific training that requires repeated practice using the tool with videos of local teachers and passing certification examinations to demonstrate understanding. Once PLs are fully prepared to conduct an observation as a part of a 1-1 coaching program, they should:

- ✓ Discuss details of when and how often they will observe and provide feedback to teachers
- ✓ Reiterate that the classroom data will be used solely for supportive, and not for evaluative, purposes
- ✓ Introduce the observation tool by showing the teacher the tool and explaining what each component measures, including how the data from the tool inform the coaching session
- ✓ Show the teacher an agenda for a coaching session and explain what the teacher will be doing
- ✓ Answer any questions or concerns the teacher may have about coaching.

Note:



See this [book](#), which offers practical guidance to improve observer training, assessment, and monitoring.

Step 3: Lead 1-1 Session

Directly following a lesson observation, or at a time that works for the teacher, the PL should meet with the teacher to facilitate the 1-1 session. The 1-1 session typically lasts 20–30 minutes. During this time, PL and teacher should identify a space to carry out the session in which the teacher feels comfortable discussing his or her teaching needs and any strengths or weaknesses that emerge. For example, these discussions could be easier for some teachers to have in a space in which students or other teachers are not present. The PL should facilitate the following 4 sub-steps during the 1-1 session:

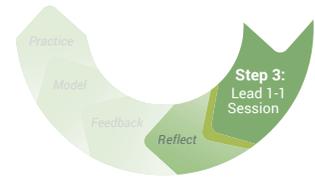
- ✓ Reflect
- ✓ Feedback
- ✓ Model
- ✓ Practice



Step 3a: Reflect

The 1-1 session starts with reflection, which is an opportunity for the PL to:

- ✓ Support and facilitate the teachers' own reflection by "slowing down" to carefully notice and examine their practice
- ✓ Deepen teachers' thinking, insights, and understandings of their practice, pedagogic skills and knowledge, their students, and strategies to improve classroom teaching and learning
- ✓ Utilize a variety of classroom data including observation notes, videos, and student data to stimulate further reflection; support teacher learning; and identify specific areas for growth.



At the start of the 1-1 session, the PL helps the teacher reflect on the observed lesson. The PL can facilitate reflection by asking questions about the teacher's experiences, thinking, and decision-making processes during the lesson and about their perceptions of what went well and what could be improved. By examining what happened in the observed lesson, the teacher can identify and analyze connections among their experiences, challenges, needs, feelings, and beliefs (Avalos 2011; Clarke and Hollingsworth 2002; Korthagen 2017). Reflection can lead to new insights about pedagogic strategies and content and student learning and is a critical part of advancing teacher learning and improving instruction (Cordingley and others 2015; Copur-Gencturk and Papakonstantinou 2016; Brodie, Lelliott, and Davis 2002).

IMPLEMENTATION TIP

It is important that teachers have an opportunity to engage on their own practice and not just on student behavior or general classroom context. PLs can facilitate teacher self-reflection by asking a series of questions. In Kenya, PLs begin each coaching session by first asking teachers: (1) How did the lesson go? (2) What went well? (3) What did not go so well? (4) What do you think you'll do differently next time??

Tusome Early Grade Reading Activity

Facilitating and opening space for teacher reflection also enables the teacher to engage with their professional practice differently (slow down, gain a slight distance), compared to day-to-day teaching environments, which can be stressful and fast paced with little time for reflection (Hobbiss, Sims, and Allen 2021). By slowing down during reflection, the PL can help the teacher identify what they can control and change and create opportunities to exercise agency in choosing the areas that should be improved (Kho, Khemanuwong, and Ismail 2020). Finally, the PL can cultivate common ground with the teacher through reflective discussion before going into detailed feedback, which can help the teachers be more receptive to feedback (Kho, Khemanuwong, and Ismail 2020).

Although critical to teacher learning, reflection is a skill that may take time to develop. In some organizational cultures, norms for critical reflection on one's education (Koosimile and Suping 2011) and workplace are uncommon (Akyeampong 2002). Furthermore, in many contexts, knowledge is viewed as "fixed," making it difficult to look at oneself or one's practice with constructive critique. Thus, the **PL may need to be aware of both the "big-picture" norms of professional reflection and the different ways that these norms and beliefs about reflection manifest in a particular school setting (Rainio and Hofmann 2021).**

Some research shows that teachers could reinforce or strengthen their current assumptions or practices when reflecting on their practice—even on instances in which they have successfully trialed new teaching practices (Rainio and Hofmann 2021). For example, after successfully using a new group activity to facilitate student collaboration, discussion, and critical thinking, teachers may reflect, "The kids talked a lot, helped each other, engaged in real problem solving, and showed that they understood the concept—more than I expected actually... but ultimately when the talking gets too loud, it becomes distracting, so they don't really learn or focus." In this instance, the teacher sees and is surprised by how the new practice had value but also draws on existing assumptions ("too much noise is not conducive to learning") to justify not using the new practice in the future. To address this tendency, the **PL should not quickly rush to conclusions and instead slow down, spend time examining any surprises or unexpected events from the teacher's experiences trialing new practices, and help the teacher use these surprises to question or challenge their current assumptions and beliefs.** There can be many ways to improve practice and the PL should feel comfortable taking time to explore these pathways through sustained and deep dialogue with the teacher.

Engaging in deliberate, thoughtful discussion about teaching practice also is an opportunity for PLs to demonstrate how they reflect and analyze a lesson and generate insights to improve their future practice. Making this reflective and analytical process explicit can serve as a model that helps teachers to deepen their capacities for professional reflection. **As teachers reflect, PLs should encourage teachers to avoid rushing to quick solutions when they face problems and instead actively reflect on any concerns and draw attention to contradictions that come up.** These contradictions between teachers' assumptions and actual experiences can be used to generate change in teachers' beliefs and develop relevant solutions (Rainio and Hofmann 2021; Louie 2016).

In highly structured programs, reflection can be facilitated with guiding questions and debrief templates that help teachers first describe, evaluate, and analyze their classroom teaching experiences and next steps (Gibbs 1988). In Namibia, structured reflection templates have been shown to deepen teachers' reflective capabilities and practices (O'Sullivan 2002). In slightly less structured programs, such as the OER4Schools, a professional development initiative in Zambia, researchers found that guided reflection led by a PL enabled "quality conversations" (Wallace 2003) and allowed teachers to notice that any contradictions in their beliefs and practices created possibilities for change (Hennessy, Haßler, and Hofmann 2016). Notably, the guided reflection helped teachers direct their attention to what students were doing, understanding, and learning. Focusing on students' participation and learning can help refocus teachers' growth, learning, and efforts to change on the goal of improving student learning (Barber 2021).

PLs can use inputs from student data to focus teachers' reflections on students' needs and how the teachers' actions directly affect students' learning (Bean 2014). Drawing on additional sources of information also can offer a more complete picture of the lesson and stimulate a focused discussion on teachers' actions and students' misconceptions, helping teachers to notice where students may be struggling and how teachers can change their practice to address student misunderstandings (Barber 2021). Some highly structured programs provide PLs with sample student work and scripts to facilitate conversations in which PLs identify gaps in student understanding. In low-structured programs, PLs can use student learning data from the teachers' lessons to focus on a specific problem of practice or to investigate new areas for teacher growth (Gibbons and Cobb 2017). For example, in the Teaching at the Right Level (TaRL) program, PLs support teachers to examine student performance using rapid, formative assessments of basic literacy and numeracy skills. Examining these data can help teachers and PLs identify how to adapt and improve teachers' instructional practices to more appropriately target student learning needs (Banerji and Chavan 2016).

Video recordings of the observed lesson can be used to facilitate deep, specific, and action-oriented reflection

(Spotlight 4). PLs and teachers can view a video of the lesson to “replay” the teachers’ practice and focus their reflective discussions on specific episodes and examples from the lesson (Roth and others 2007). Using videos during 1-1 reflections has been shown to enable teachers’ reflections to become more specific and content focused (Ulusoy 2020). Moreover, videos can support teachers’ reflections to be more student- and learning-focused so that teachers notice how their practices directly affect their students’ participation and learning. Videos also have been found to help teachers slow down and view their own practice from an objective, or “outsider,” position. This objectivity can help teachers to examine and question aspects of their practice that they typically might take for granted or assume cannot be changed (Mbhiza 2019). Viewing videos of their lessons also can help teachers take greater responsibility for their learning and be more receptive to feedback from others (Hollingsworth and Clarke 2017). Ultimately, when teachers generate specific, learning-focused observations and insights from watching their teaching, they can develop, envision, and enact new, concrete ways to improve their teaching practices (Mbhiza 2019).

SPOTLIGHT 4. Step-by-Step Guide for Recording a Lesson and Facilitating Video-Based Reflection

Video-stimulated reflection is a well-established tool to stimulate teachers’ reflections and reasoning and support their growth and practice (Allier-Gagneur and others 2020; Geiger, Muir, and Lamb 2016; Hennessy and Deany 2009; van Es and Sherin 2008). Although recording a lesson can be highly valuable, PLs should be aware that using a video camera in the classroom can be disruptive at times. PLs thus should strive to be as non-intrusive as possible. The following steps can guide PLs to record a lesson and use the video as a stimulus for reflection and successful learning:

1. Before recording a lesson, PLs should ask for the teachers’ and parents’ consent. Moreover, to maintain trust and rapport, the recordings should not be shared with colleagues or school leaders without obtaining each teacher’s permission. If teachers are unsure about being recorded, PLs can describe some of the benefits of video recordings to reassure teachers and discuss how the videos will be used only for reflection and teachers’ personal learning purposes. PLs also should communicate whether videos will be used for accountability purposes in the future, and PLs should not share video recordings externally without explicit permission from each teacher and student’s parents or guardians.
2. After receiving consent from all relevant parties, the PL should quietly record a lesson by placing the camera in a safe and stable area of the classroom that captures the teacher’s activities as well as some student interactions. PLs should check the view of the camera before starting the lesson to ensure that the recording captures key people and activities. The PL and the teacher also may agree before the lesson to record only the portion of the lesson that is the focus of the 1-1 coaching cycle. Alternatively, the teacher can record the lesson and send it to the PL, who can provide feedback remotely. To do so, the PL would follow these same steps.
3. After the lesson but before viewing a video recording of the lesson, the PL and the teacher should engage in a few minutes of warm-up reflection questions and discussion, such as:
 - ✔ “How was the lesson for you? What went well? What moment do you feel proud of? What moment do you think you could do differently next time?”
4. The PL and the teacher, either independently or collaboratively, discuss and agree on a portion of the recording that they would like to watch based on the initial reflection. The PL and teacher watch the video recording. Videos can be watched straight through; or they can be paused at key moments so that the PL and teacher can discuss and reflect on specific actions or activities.
5. After viewing the video, the PL and teacher can use a blank observation tool to take notes and together score the video, identify a key moment to re-watch and discuss step-by-step, and/or elaborate on their initial reflection. The PL can use prompting questions to guide and deepen the teacher’s reflection when watching and reflecting on the video, such as:
 - ✔ “Can you tell me what you were thinking in this moment? What influenced your decision to do X?”
 - ✔ “What do you think you did well in this instance? Is there anything you would change next time? Why or why not?”
 - ✔ “How did students react when you did X? Did that surprise you? Why?”

Step 3b: Feedback

Following reflection and discussion, the PLs provide the teachers with specific feedback—or suggestions, actions, and strategies to improve their practice. Providing feedback is a critical part of the coaching process and must be facilitated with care and attention to maintain relationship rapport, trust, and respect. When constructively led, the feedback portion of the 1-1 session enables PLs to:



- ✓ Highlight areas of success and areas for growth
- ✓ Ensure that reflection and discussion are oriented toward action and improvement
- ✓ Provide specific, tailored, practical, and actionable guidance to help the teacher's growth
- ✓ Support teachers to focus on 1–2 areas for immediate practice and improvement.

After facilitating teachers' reflection, PLs provide specific feedback to them (Spotlight 5). Before sharing feedback, PLs should make the structure for feedback explicit to teachers so that they know what to expect (Keiler and others 2020). For instance, PLs should indicate how many points of feedback will be delivered (typically, no more than 2 points of improvement-focused feedback) and *when* teachers will have a chance to reflect on and respond to the feedback. All feedback should be focused on a specific teaching practice and be facilitated respectfully to support teachers' targeted growth while sustaining rapport (Thurlings and others 2013).

PLs first should provide positive feedback before introducing more constructive feedback. Some research has found that feedback that is concrete and constructive with a positive undertone can be most meaningful for teachers (Watling and others 2013). Importantly, positive feedback should be specific and meaningful so that teachers can appreciate genuine progress toward their goals and do not view positive praise as an insincere cushion before receiving more critical feedback (Finkelstein and Fishbach 2012). *Meaningful* positive feedback also can reinforce good performance and help to frame any forthcoming constructive critique not as a personal fault but as guidance for growth, further strengthening PL's rapport with teachers (Bean 2014). One-to-one coaching sessions should not start by criticizing teachers' practice. Doing so may create an environment in which teachers feel defensive, uncomfortable about making mistakes, or hesitant to try new practices (Le 2007; McAleavy and others 2018). An additional risk is that experienced PLs may unknowingly practice judge-mentoring—in which PLs reveal their own judgments or evaluations of the teachers' practice—and, in turn, unintentionally jeopardize the relationships (Hobson and Malderez 2013; Harion and others 2020). By intentionally first focusing on and detailing positive feedback, PLs can avoid judge-mentoring, reinforce teachers' growth, and motivate continuous improvement.

After discussing positive feedback, PLs should prioritize 1–2 areas of feedback for instructional improvement that are linked to the teacher's current goal. To avoid overwhelming teachers with too many areas for improvement and to help teachers work toward a specific goal, feedback should focus on only 1 or 2 specific areas. Keeping feedback focused on just a few areas is easier to manage cognitively (Feldon 2007) and can help teachers notice and feel good about their growth (even if in only a few areas), thus stimulating their motivation to continuously improve (Feldon 2007; Fishbach and Koo 2015). To ensure that the PLs' feedback is useful and realistic to implement, it should be aligned with teachers' needs, goals, and problems of practice. These three often have been identified in previous 1-1 sessions and earlier reflections (Gibbons and Cobb 2017; Hattie and Timperley 2007). Feedback also should be clear and actionable so that teachers are able to envision how they can incorporate feedback in their instructional practices and meet their agreed goals (Gibbons and Cobb 2017; Keiler and others 2020; Scheeler and others 2004; Sider 2018).

It is especially important for the PL to provide instructive feedback to novice teachers because their needs differ from those of more experienced teachers (McAleavy and others 2018). Specifically, evidence indicates that novice teachers' working memories can become overwhelmed by complex tasks (Paas and van Gog 2006). Therefore, new teachers should be provided with sufficient scaffolding and targeted, specific, and manageable actions to help them focus on the salient aspects of the PL's support (Allier-Gagneur and others 2020; Sims and Fletcher-Wood 2018). Research also suggests that individuals with less prior knowledge benefit more from examples (Chernikova and others 2020) so feedback that includes specific examples may be especially valuable for novice teachers.

Expert practitioners with greater prior knowledge, who may be more likely to be found in low-structured programs, benefit from reflection (Chernikova and others 2020). They therefore may benefit most from feedback that incorporates elements of reflective questioning and discussion of their practice. Expert teachers can acquire new skills with less scaffolding so should be provided with feedback that enables them to draw on and build their pedagogic knowledge through problem-solving, elaboration, and discussion of specific classroom situations in which the feedback may usefully applied (Seidel, Blomberg, and Renkl 2013).

IMPLEMENTATION TIP

In Brazil, every school's principal, PL, and teacher received a copy of *Aula Nota 10* (Portuguese translation of *Teach like a Champion*). The book describes "high-impact" teaching practices that have been shown to stimulate student learning. The book includes practical descriptions of useful techniques and access to online video examples.

The Lemann Foundation, an NGO responsible for translating these materials, also created examples of the same techniques filmed in Brazilian classrooms.

Ceará Teacher Feedback and Coaching Program

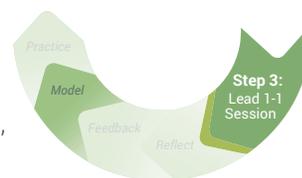
SPOTLIGHT 5. Feedback: Four Rules of Thumb

Four "rules of thumb" for *how* to deliver effective feedback to teachers were identified in a systematic review of 60 studies on providing feedback in education settings (Thurlings and others 2013). Effective feedback is:

1. **Discussed.** A teacher should have an opportunity to dialogue with PLs about the feedback, with time to ask questions, request elaboration, and/or discuss specific examples. A PL can save a few minutes after each point of feedback for the teacher to respond. If the teacher does not respond to the feedback, the PL may prompt a dialogue by saying:
 - ✔ "Does this suggestion resonate with you? Why or why not?"
 - ✔ "How might you apply this feedback in your class?"
 - ✔ "Do you have any questions?"
2. **Justified.** PLs should provide justifications for any areas for improvement—an indication of a mistake or area for improvement is not enough. PLs should justify and elaborate on the feedback by linking it to specific examples from the teacher's classroom captured during the classroom observation. Using examples from classroom observations ensures that the PL provides concrete feedback that is informed by a specific teacher action.
3. **Learning-focused.** Feedback should be a tool to facilitate teachers' active learning and growth. Instead of telling teachers what to do, PLs should share feedback in a way that helps teachers understand the ideal practice for which they are striving, notice their own current practice, and identify ways to close the gap between current and ideal practice. PLs can do this by:
 - ✔ **Highly structured programs:** Using the feedback to show how teachers' current practice could become the ideal practice.
 - ✔ **Low-structured programs:** Helping teachers compare and contrast ideal and current practices. When any dissonance emerges, instead of rushing to quick solutions, encourage teachers to interrogate the dissonance and generate a variety of ways to bridge the gap (Rainio and Hofmann 2021).
4. **Timely.** Feedback should be given frequently, as soon as possible, and when it is still relevant to teachers—ideally immediately after a classroom observation or real-time practice session. If, between 1-1 coaching sessions, a PL receives a video of teacher practice, a teacher lesson plan, or sample student work sent via SMS or email, the PL should respond with feedback as soon as possible within a few days.

Step 3c: Model

After discussing 1–2 areas for improvement, it is important for PLs to help teachers see and understand how to implement instructional improvements. Without clear representations of what ideal practice looks like, and opportunities to discuss and analyze such representations, it can be difficult for teachers to translate theoretical feedback into embodied and enacted improvement (Grossman and others, 2009). **PLs can support teachers to understand, develop and implement new or advanced practices by demonstrating or modeling specific teaching practices and approaches during the 1-1 session.** Modeling is a key activity in effective coaching because it is known to positively influence teacher practice (Gibbons and Cobb 2017). Modeling involves a PL performing a task or demonstrating a skill in such a way that the teacher can observe and build a conceptual understanding of the steps required to achieve a similar outcome. The PL can model by either physically demonstrating a practice or using supplementary materials, such as videos, to demonstrate behavioral expectations, new instructional practices, and ways that teachers can translate teaching principles into a variety of concrete practices (Darling-Hammond, Hyler, and Gardner 2017; McAleavy and others 2018; Westbrook and others 2013). Modeling thereby supports teachers to understand the purpose and potential of a pedagogic approach and envision what is possible for them to achieve in their classroom instruction. Although modeling will happen most often during the 1-1 coaching session, on occasion, PLs can opt to co-teach, or model certain practices in live follow-up lessons (Spotlight 6).



When modeling, PLs should break down complex behaviors into specific, concrete steps. PLs are well placed to help teachers implement a complex skill if it is well defined and the teachers are given opportunities to see the skill in action before they implement it themselves and obtain feedback about their performance (Matsumura, Garnier, and Spybrook 2012). In highly structured programs, structured materials (such as teacher's guides) can be useful tools to help PLs break down complex behaviors into concrete, discrete steps. These materials can provide clear and specific directions on how to implement a given practice that otherwise may be difficult to enact (Thijs and van den Berg 2002). The materials can be a useful resource for PLs to draw on and refer to when modeling with teachers in 1-1 coaching sessions.

IMPLEMENTATION TIP

As PLs model for teachers, they may ask questions to ensure that the teachers understand the skill and how they can apply it in their classrooms. Examples of these questions are:

- When or in what situations do you think you can use this skill in your classroom?
- Which part are you most comfortable or confident using in your classroom?
- Which part are you least confident about using in your classroom?
- What might be challenging about applying this skill in your classroom? How can we mitigate these challenges?

As they model, PLs should make their thinking and decision-making explicit and clear to teachers. Explicitly pausing; drawing attention to; explaining; and discussing actions, decisions, and rationales can help teachers internalize the thinking and reasoning that inform new instructional practices (Grossman and others 2009). PLs should not be afraid to slow down, repeat, discuss, and analyze each step with teachers. PLs also should check in with teachers each step of the way to see whether teachers have questions, and/or need clarification or a repeat demonstration. Modeling in this methodical and discussion-based way creates space for teachers to actively grapple with new practices, thereby deepening teachers' understanding of *how*, *when*, and *why* they should use a particular practice in their own classrooms (Grossman and others 2009). Moreover, when PLs explicitly model their thinking and reasoning alongside their actions, teachers can see how an expert teacher reasons and makes informed in-the-moment decisions based on diverse stimuli and goals, including student responses, classroom dynamics, and the lesson objective.

PLs can use tools, such as videos or instructional resources, to model explicit areas for instructional improvement. Videos can be a useful tool that PLs can use to model instructional practices to teachers, especially in highly structured settings or if the new or advanced skill goes beyond a PL's current capabilities. (McAleavy and others 2018). However, teachers do not gain new insights about practice merely from watching classroom videos (Brophy 2003). Instead, PLs must first establish a clear purpose for viewing a video that is based on teachers' specific learning goals (Borko and others 2008; Brophy 2003; van Es and others 2014). Moreover, videos should be familiar to

teachers' local contexts because instructional and professional learning resources that lack cultural relevance can be dismissed (Lall 2010; McAleavy and others 2018). Teachers with lower prior knowledge may benefit most from the PL first sharing specific principles for improvement before viewing the video and then sharing the video to exemplify the specific principles (Chernikova and others 2020; Seidel, Blomberg, and Renkl 2013). Teachers with higher prior knowledge may benefit most from viewing the videos first and then identifying and reflecting on the principles in collaboration with the PL (Seidel, Blomberg, and Renkl 2013; Chernikova and others 2020). Regardless of the teachers' levels of experience and prior knowledge, PLs should select video clips that are linked to a specific area of feedback or improvement (Borko and others 2008) and support the teachers to consider how the video relates to the teachers' goals, practice, and areas for growth (Allier-Gagneur and others 2020). In one such program in India, teachers attributed the use of video as a tool for reflection and guide for practice as the main driver of their instructional change (Wolfenden and others 2017).

SPOTLIGHT 6. Co-Teaching as a Form of Modeling

Although modeling will happen most often during 1-1 coaching sessions, on occasion, PLs can opt to model certain practices in live follow-up lessons while co-teaching with the teachers. Co-teaching is contingent on whether the PL has the pedagogical knowledge, time, and resources to conduct a follow-up classroom visit. For co-teaching to be meaningful, the PLs need to be well capacitated in the skills they will model so that the model illustrates ideal practice at a quality level. Moreover, co-teaching should be used only in cases in which teachers have the option and autonomy to opt in, rather than being forced to co-teach as a form of reprimand.

Co-teaching can have many benefits for teachers, including, but not limited to:

- ✔ **Supporting teacher learning and implementation of new practices.** It can be powerful for teachers to observe how PLs navigate the complexities of a live classroom as they unfold in real time (Scheeler and others 2004) and in a real environment in which teachers will be expected to enact similar instructional practices in the future (Westbrook and others 2013).
- ✔ **Facilitating a gradual transfer of skills to assist teachers in independently implementing specific strategies** (Bean 2014). Co-teaching can be a scaffolded strategy to support teachers who may be struggling, may not feel confident implementing new practices, or may have limited experience.

In a co-teaching set-up, the PL and teacher should discuss and agree on the parts of a lesson that the PL will lead so that there are clear and agreed roles and expectations. While the PL leads the lesson, the teacher should observe how the PL facilitates instruction and navigates the classroom environment. Following the lesson, the PL can explain their decision-making process for performing each task and how the teacher can incorporate it in their lesson (Grossman and others 2009).

Step 3d: Practice

Throughout the 1-1 cycle, rather than simply presenting material to teachers, PLs should intellectually and actively engage teachers. Active engagement with, and application of strategies through, practice and real-time feedback increases the likelihood that teachers will internalize, understand, and draw on their learning in their own classrooms (Allier-Gagneur and others, 2020; Kennedy 2016; Thomas, Knowland, and Rogers 2020). Moreover, practicing with the support of a PL has been found to be critical to advance teacher learning and motivation and to improve classroom practice and student learning (Darling-Hammond, Hyler, and Gardner 2017). For example, a review of effective teacher professional development (TPD) programs in LMICs found that the proportion of time that teachers spent practicing new approaches highly correlated with improvements in student learning (Popova and others, 2018). However, PLs should be aware that how teachers practice matters and that spending many hours practicing will not be beneficial if the practice is not high quality. **PLs therefore should provide opportunities for teachers to apply their learning through “deliberate practice” with the PLs in real time** (Spotlight 7).



“Deliberate practice” is a high-quality, intentional, and scaffolded form of practice in which teachers are supported by an expert mentor or coach, such as a PL, to build expertise over time in the coaching cycle (Ericsson and Harwell 2019; Ericsson, Krampe, and Tesh-Römer 1993). In deliberate practice, which includes feedback and modeling, teachers practice a new skill multiple times in a row while receiving targeted, real-time feedback and individualized support from either a well-qualified PL in a low-structured program or a well-supported PL in a highly structured program. Research has found that deliberate practice is an especially valuable approach to improve expertise. In addition, converging evidence from neuroscience, psychology, economics, and education suggests that repeated practice in realistic workplace settings during coaching can help to alter existing habits (Hobbiss and others 2020; Sims and Fletcher-Wood, 2020). Deliberate practice can be used to target routine aspects of practice, such as classroom management, as well as more complex aspects of practice, such as content-specific pedagogies (Lampert and others 2013).

PLs also can support teachers’ deliberate practice by creating well-scaffolded practice activities targeted to teachers’ current capabilities. Designing practice tasks that encourage teachers to try new instructional practices but are not too difficult or complex can ensure that teachers are challenged, yet not overwhelmed by new instructional practices (Ericsson and Harwell 2019). PLs should provide ample support as teachers gain confidence over time and become increasingly independent knowing when and how to use the technique without the support of the PL (Bean 2014, 12). Additionally, PLs and the teacher first may collaborate on a task that the teacher finds difficult to perform independently (Spotlight 6). As the teacher gains experience and confidence, they should be able to perform the same task independently (Kho, Khemanuwong, and Ismail 2020).

IMPLEMENTATION TIP

Rehearsing new skills alongside a PL requires teachers to share their practice and process of improvement with the PL, which can be a vulnerable experience. However, a PL can support teachers’ rehearsals by discussing and establishing explicit norms and principles for practice, such as “It is normal to make mistakes as we learn”; or “We will try to repeat a new skill at least twice”; or “We can ask for help whenever we need it” (Kazemi and others, 2016).

Effective practice activities are connected to teachers’ current teaching contexts and provide opportunities for teachers to rehearse teaching techniques and decision-making concerning when and how to implement new practices (Lampert and others 2013). PLs can create practice activities that are directly linked to upcoming lessons that teachers intend to teach. This strategy both illustrates the applicability of the practice and prepares teachers with the skills and decision-making processes to integrate their new learning and skills in a live classroom in the near future.

While teachers rehearse new skills and approaches in 1-1 sessions, PLs should strategically provide real-time feedback. PLs should consider teachers’ current capabilities and needs to determine whether teachers may benefit from immediate directive or evaluative feedback or scaffolded support. PLs also can decide to pause after a repetition so the teacher can discuss, reflect, and analyze their performance. Pausing and reflecting create opportunities for teachers to notice any “gap” between their current capabilities and their practice goal, as previously modelled by the PL, and discuss strategies with the PL to close any noted gaps in capabilities (Kazemi and others 2016; Lampert and others 2013).

SPOTLIGHT 7. “Practice Perfect”

In the “Practice Perfect” methodology (Lemov 2012), practice can be harnessed by PLs to maximize the efficacy of teacher professional development. PLs integrate deliberate practice activities in the support and feedback that they provide to teachers during 1-1 coaching sessions. These activities ensure that the skills are not repetitive but challenge the teachers to apply the concepts that they will be expected to incorporate in their instruction.

School systems can create a culture of practice. They should provide PLs with the resources to help teachers: (a) work toward specific, manageable goals, (b) receive accurate and useful feedback on the performance of their practice, (c) be challenged to adopt new skills and instructional techniques, and (d) build on their decision-making skills. This last concept requires knowledge of how to improve, when to use a practiced skill, and when it is relevant to incorporate the skill in a lesson. The “Practice Perfect” methodology outlines four types of practice that coaches can use to design and develop valuable practice activities.

1. Mini-Practice	2. Integrated Practice	3. Scrimmage	4. Planning Practice
Short introductory practice (with no feedback) that isolates foundational skills, builds muscle memory, and ensures that the teacher understands the practice activity.	Increasingly complex or challenging rounds of practice in which techniques or their elements are progressively combined; decision-making is addressed; and the teacher receives instant, bite-sized feedback.	Practice to prepare teachers for the realities of implementation by replicating the conditions of an actual classroom setting.	Planning potential content activities based on available instructional data and receiving feedback on their quality from a coach before incorporating them in an actual lesson.

Note:



See this [video](#), which explains why it is crucial for PLs to actively practice with their teachers.

Step 4: Discuss Next Steps

At the end of the 1-1 session, PLs and teachers should revisit the goal for the 1-1 session and evaluate whether they want to continue working on that goal for the next session or adjust it based on how the observation and coaching session went (Kho, Khemanuwong, and Ismail 2020). In highly structured programs, PLs have supportive materials that prompt when they should introduce and support the teacher toward a new goal. In low-structured programs, PLs have more autonomy to decide whether or how the goal should be adjusted. Regardless of structure, when deciding the next goal, PLs should work with teachers to decide whether the latter feel confident “graduating” from the goal or prefer more practice and support before starting a new goal.



PLs and teachers then should agree on a clear and specific goal for the teachers to work toward independently before the next 1-1 session. Setting clear and attainable goals that the teachers can work toward independently is critical to deliberate practice and improvement (Ericsson and Harwell 2019). Goal setting also can help teachers notice areas in which they can exercise agency and engage in change, internalize that growth is possible, and establish professional norms toward improving their instructional practice (Gibbons and Cobb 2017). Goal setting can be determined collaboratively and via consensus through open, constructive discussion informed by the teachers’ needs (Kho, Khemanuwong, and Ismail 2020).

In somewhat structured programs, the PL can provide the teachers with several options and the teachers can choose their area of focus. In highly structured programs, the goal may be predetermined based on prior classroom observations or on student learning data. Note that this process should not be entirely decided by the PL but also should be determined based on the observation data *and* teachers’ preferences and personal learning goals. Once a goal is agreed, PLs should clearly communicate to teachers that subsequent observations and 1-1 sessions will focus on only the identified areas for growth and improvement, even if observation tools include a greater list of skills

and practice areas. Knowing that they need to work on only the specified goals can motivate teachers to make small but clear shifts in their practice and sustain their confidence while they push their skill level. The risk is that without a specific focus or with too many goals, identifying which areas of practice to prioritize or how to make concrete and incremental steps toward improvement can be difficult. As a result, independent practice may be difficult to enact; or, when enacted, may not contribute toward improvement (Ericsson and Harwell 2019).

After agreeing on the shared goal, PL and teachers should discuss when and how the teachers will integrate the practice or work toward the shared goal in their independent teaching and classroom practice. Some research has found that teachers can see themselves as “un-agentic”—unable to make the suggested changes in practice—because they feel the changes might not work in their settings or that the changes are “not allowed” by their school leaders or inspectors, even when this is not the case (Horn and Kane 2015; Vedder-Weiss and others 2018). Thus, it is especially important for the PL to support the teachers to explicitly envision how they will achieve the goal in their own classroom—and how they can draw on support from school leaders, colleagues, and the PL between coaching sessions (Spotlight 8).

IMPLEMENTATION TIP

In South Africa, PL and teachers sign a form after each coaching session that outlines the agreed next steps. The PL uses this form to inform the next visit. Between visits, the PL follows up with teachers via text messaging to check on their progress, share useful videos/content, and answer any questions the teachers may have.

Early Grade Reading Study

Before leaving the 1-1 session, the PL should log agreed next steps, including timing of the next session. As well as the quality of the coaching session, the frequency with which PL visits teachers is essential. Several reviews of recent research note that 1-1 sessions should be scheduled regularly—at least once a month—to allow for repeated, ongoing support (Cordingley and others 2015; Orr and others 2013). To operationalize the regular schedule, the PL should set a time to meet with the teachers following each session while being cognizant of time and scheduling constraints that teachers face. A lack of planned, regular follow-up risks losing the gains that teachers make with their PL (Orr and others 2013).

SPOTLIGHT 8. Achieving Goals with Implementation Intentions

Evidence has shown that having individuals specify when, where, and how they intend to achieve their goals increases the likelihood of success. These “implementation intentions,” or if-then plans, have shown to be a powerful self-regulating strategy for overcoming the typical obstacles associated with goal setting (Gollwitzer and Brandstätter 1997). Actively prompting individuals to make plans increases their likelihood of following through on their goals (Rogers and others 2015), despite common challenges such as struggling to get started, getting derailed after starting, pursuing failing goals, and struggling to pursue new goals (Rogers and others 2015). By clearly outlining implementation intentions, individuals have a greater likelihood of recalling what they intend to do in the right circumstances and time when they need to execute the task; simplifying the execution of the plan by clearly outlining the steps needed to implement it; and maintaining autonomy over their decisions (Rogers and others 2015). PLs can benefit from incorporating implementation intentions in their coaching routines because doing so will increase the likelihood that teachers are able to adopt the practice in real time. To help teachers follow through and adopt new practices, a PL should discuss when and how the teacher implements the specific agreed skills.

- ✔ **Plan when.** PLs can help teachers by asking them to specify *when* they will use a particular strategy. For instance, instead of simply setting a goal such as “check for understanding more,” PLs can help the teachers identify specific situations when they should do so. If a teacher has decided she wants to check for additional understanding with the students to determine whether they understand, and all the students respond with a resounding “Yes!” the teacher has a realistic plan and cue for action. The PL can reinforce her planning by asking the teacher to set a reminder, or to make a commitment to the PL to stick to this agreed plan (Rogers and others 2015).
- ✔ **Plan how.** PLs also can help teachers to plan *how* they will act and overcome barriers in executing this plan. For instance, if a teacher finds that all the students answer with a resounding “Yes!” the teacher should be prompted to walk around the room and ensure that the students have the correct responses written and are following along before proceeding with the lesson. The PL can ensure that the teacher implements their intentions by specifying in what setting they will implement the skill; envisioning what problems may arise when using it; and brainstorming how to respond to these possible disruptions.

Note:



See this [video](#), which provides an actionable example of how to execute these two tips.

Between Sessions: Ongoing Skills Application

Although the 1-1 session is a critical period of learning and growth, additional important activities take place outside this 1-1 time, including independent practice, occasional digital communications between the PL and the teacher, and collaboration with colleague teachers or school leaders. Teachers can use a variety of tools and techniques such as observation forms; student assessment and feedback; reflection sheets; and prompting questions to capture, stimulate, and sustain their learning when the PL is not present (Hofmann and others 2021). The extent of these activities and tools will depend on the schools' and PLs' capacities and time, materials, and technological resources. Nevertheless, whenever possible, these activities should be prioritized. These “in-between” activities help solidify teachers' learning and can determine the program's ultimate effects on student learning (Darling-Hammond, Hyler, and Gardner 2017).



PLs should encourage teachers to deliberately practice new skills and strive to achieve agreed goals between 1-1 sessions.

Trialing new practices as a part of a professional learning intervention can help teachers become more aware of their agency to effect change (Wolfenden and Adinolfi 2019; Hofmann 2020). Subsequently, repeatedly practicing new skills independently in their own classrooms can help teachers refine a skill and develop new habits to make teaching actions more automatic (Sims and Fletcher-Wood 2020). If teachers do not practice independently in their classrooms, the new practices are not likely to take root.

PLs should encourage teachers to explicitly share change efforts with their students and explicitly address the norms that the teachers are trying to change. For example, teachers who are trying to implement more student-centered or discussion-based teaching practices should tell students they they will have more opportunities to collaborate in small groups and that they will be expected to debate, problem-solve, share, and explain their reasoning with their peers before agreeing on an answer or solution. Making change efforts and new norms explicit to students can help shift students' expectations, making it easier to change collective teaching and learning practices and less likely that teachers will revert to old practices (Hofmann and Ruthven 2018).

Between 1-1 coaching sessions, PLs also should encourage teachers to continuously reflect on their practice; note successes, challenges, and surprises; and communicate challenges, questions, and insights to their PLs. Teachers' reflections can be documented in a variety of ways, such as in a written or audio diary, voice memos or messages to their PLs, or reflective meetings with colleagues within their school, depending on the resources available. Teachers also can record short videos of their teaching and examine these videos with observation tools or templates to independently critically reflect on their teaching (Spotlight 8). These videos can be used to complement other forms of teacher reflection and can be shared with in-school colleagues and/or PLs for collaborative reflection (Walker, Hennessy, and Pimmer 2022). Collaboratively examining teachers' practice can make teacher learning explicit and therefore open for deeper examination, helping to expand teachers' understanding of what is possible to achieve and change (Engeström 2001; Horn and Kane 2015; Rostami and Yousefi 2020; Wallen and Tormey 2019; Wolfenden and Adinolfi 2019). PLs then can incorporate these experiences, insights, and questions in future coaching sessions to build on and further encourage teachers' independent practice and learning.

SPOTLIGHT 9. Providing Remote Support to Teachers

Policymakers need to be cautious of replacing in-person relationships with fully virtual ones. Implementing the coaching cycle fully virtually is not recommended. It is necessary to ensure opportunities for the PL and teacher to meet in person. As this Guidance Note demonstrates, the quality of the relationship between teachers and PLs is crucial to teacher learning and change. Adapting a program to meet virtually ongoing is unlikely to ensure that the quality of these interactions will be high. It is therefore recommended that policymakers consider and integrate the following 1-1 coaching intervention design principles:

- a. *Ensure that all stakeholders using technology have the appropriate digital skills.* It should be ensured that all PLs have the digital skills to utilize technology as a tool to reach teachers remotely. Likewise, teachers should have access to the necessary technology and the digital skills necessary to fully engage in a technology-based intervention.
- b. *Ensure that PLs have at least 1 opportunity to meet teachers in person prior to starting the 1-1 coaching session.* Building rapport with teachers is critically important in 1-1 coaching sessions and is harder to do remotely. Some evidence exists that in-person coaching can be supplemented with videos (Bruns, Costa, and Cunha 2018; Leyva and others 2015). However, to meaningfully facilitate these 1-1 coaching relationships, **it is important to have highly skilled PLs who have pre-established relationships with the teachers.**
- c. *Ensure that, wherever possible, every coaching relationship has an in-person component.* If technology-based and remote support, such as online messaging, SMS, videos, and/or phone calls, is being used, use it not to supplement, but to complement an in-person training/coaching relationship.

Technology has been used effectively to keep PLs and teachers in contact between 1-1 sessions, especially in contexts in which it is difficult for PL to do in-person check-ins between monthly coaching visits. PLs can encourage teachers' ongoing development and practice between 1-1 sessions through periodic phone calls, emails, or SMS, depending on the availability of technology. PLs can maintain and strengthen rapport between 1-1 sessions by connecting with teachers digitally (Mendenhall and others 2018). Considering the role, availability, and teachers' technological capacity can help ensure the technological intervention supports, rather than hinders, program efficacy (Allier-Gagneur and others 2020). PLs can offer light-touch, but highly valuable, individualized remote support by:

- ✔ Responding to teachers' questions
- ✔ Sharing intermittent tips and teaching techniques
- ✔ Offering short reminders of teachers' goals and messages of encouragement
- ✔ Requesting teachers to share short video clips of their teaching, examples of student work, and/or brief audio reflections on their progress.

If PLs support many teachers and are unable to provide intermittent individual support, they can support multiple teachers at a school or within a region through mobile messaging group on a shared messaging platform. Teacher WhatsApp groups have been shown to be a viable way to support improvement and program monitoring and develop a community of practice, especially in settings separated by wide geographic distances between PLs and teachers (Mendenhall and others 2018; Moodley 2019). For example, in the South Africa Early Grade Reading Study (Cilliers and others 2021), PLs hold small competitions in which teachers win small prizes for sending pictures of their best student work and weakest student work to the PL and other teachers in their WhatsApp group. Reviewing weak student work gives teachers opportunities to exchange ideas with one another on how to resolve the challenges. Moreover, reviewing weak student work provides opportunities to discuss student misconceptions, which signals to the group that learning is a continuum and requires that teachers pay special attention to struggling students. Sharing student work enables all the teachers to see good practice and encourages other teachers to submit work to the PL, which helps give the PL a deeper understanding of what is happening in the classroom.

Conclusion

At its core, coaching is a collaborative learning relationship. To support teacher growth and improve teaching practice requires continuous, supportive, trusting partnerships between PLs and teachers. PLs serve as mentors, trusted colleagues, and champions who support teachers to try new practices—especially in the face of vulnerability, risk, and uncertainty—and who motivate and encourage teachers’ continued growth (Alsofrom 2018; Cilliers and others 2021; Kotze, Fleisch, and Taylor 2019). PLs provide 1-1 coaching by helping teachers to establish goals, observing teachers’ classroom practices, facilitating meaningful feedback and practice sessions, and encouraging teachers’ independent and deliberate practice between 1-1 sessions. Through repeated 1-1 coaching sessions, ongoing independent practice and reflection, and a sustained dynamic relationship with the PL, teachers gain opportunities to learn, receive feedback, try new techniques, and improve their practices.

The coaching cycle detailed in this Guidance Note provides a blueprint and research-based strategies for providing quality 1-1 support. However, and ultimately, *how* PLs implement the cycle matters. PLs should stay attuned to teachers’ self-identified and observed needs, view their own coaching work as deeply relational, and cultivate a partnership guided by support and growth, instead of monitoring or inspecting. Importantly, policymakers should prioritize creating conditions that enable PLs to consistently conduct high-quality 1-1 sessions with teachers, while considering how the cycle might be uniquely implemented within their local contexts. Our students deserve high-quality teaching, and our teachers deserve high-quality ongoing support and professional development. One-to-one coaching is a promising way to ensure that both students and teachers learn, grow, and reach their full potential.

Appendix A. Case Study and Literature Search and Selection Methodology

Overview

First, 10 K-12 coaching interventions in LMICs contexts were reviewed. These interventions were evaluated in randomized trials and reported effects on student learning outcomes and/or teacher practices, featured in the *Structuring Effective 1-1 Support* Technical Guidance Note. To learn more about the 1-1 coaching sessions, a subsample of local implementers and researchers from six of the coaching interventions who led these studies and were available for follow-up were interviewed. The implementation tips and coaching cycle (figure 1) featured in this Note are drawn from these interviews and the original evaluation reports. In line with the “effectiveness- plus” approach (Snilstveit 2012), an additional qualitative literature review was undertaken simultaneously to supplement the 10 program evaluations with theoretical and empirical literature that illuminates *how* 1-1 coaching can be conducted in LMIC contexts and *why* particular coaching steps and activities matter. The qualitative review includes best evidence syntheses, critical and conceptual reviews, and in-depth qualitative empirical studies that examine the process of conducting coaching from over 20 countries.

Case Study Selection and Inclusion

The team reviewed a sample of 10 evaluated coaching programs in low- and middle-income countries (LMICs). These programs satisfied the inclusion criterion of being a low- or middle-income country K-12 coaching intervention that had undergone an impact evaluation and had reported impacts on student test scores and/or teacher practices. These program reports were supplemented by 8 qualitative interviews from 6 of the coaching programs and included examples across the continuum of high/low-structured support. The country distribution of the 6 included coaching case studies focused predominantly in Africa (Kenya-1, Malawi-1, South Africa-2) with several from South America (Brazil-1, Chile-1). To complement these case studies and to demonstrate the full geographic range of LMIC contexts, the team sought qualitative research that featured countries in East and South Asia and additional countries throughout Africa and South America.

Literature Review Conceptual Focus

The supplementary literature review draws from a wide range of research on teacher professional learning, development, and coaching from the professional learning sciences, education, behavioral economics, and psychology. More specifically, selected literature focuses on coaching and on teacher professional learning, effective professional development, and mentoring.

Given the substantial overlap between coaching and mentoring, such as the importance of feedback and collegial reflection, literature on mentoring was included. However, PLs are education specialists who often are not based in a particular school and instead periodically visit teachers and schools to conduct 1-1 coaching. In contrast, mentors tend to be senior teachers or leaders based in one school who provide regular collegial support to teacher mentees. The relational difference is notable. For example, PLs may develop and sustain rapport with teachers differently than does a school-based mentor. This Guidance Note draws primarily on coaching literature but also integrates insights from mentoring literature that displays relevant similarities in the roles.

Literature Review Regional and Temporal Focus

The supplementary literature review includes research from a variety of locations including high-income countries (HICs) but focuses on LMICs. When evidence was not available from a particular region or low-income country (LIC) context, the Note relied on evidence from HICs.

The literature also has an inherent temporal dimension: prioritizing the most recent literature. Selected systematic, critical, and/or best evidence reviews typically were published in the past five years (with a few exceptions) because these reviews integrate, critique, and build on previous systematic, critical, or best evidence reviews. These most recent reviews thus are inclusive of older literature while adding relevant new insights.

Methodological Focus

Because this Guidance Note focuses on how to implement 1-1 coaching sessions, rigorous qualitative research was deemed the most appropriate evidence base to include beyond the evaluation reports of the 10 LMIC coaching interventions, which were drawn from the *Structuring Effective 1-1 Support* Technical Guidance Note. Therefore, the current Note prioritized systematic, critical, and/or best evidence reviews on coaching, teacher professional learning, and specific actions within the coaching cycle from LMICs and HICs. Subsequently, empirical papers were searched and selected according to type of evidence required. The empirical papers included randomized controlled trials (RCTs) with qualitative components and qualitative studies primarily from LMICs with occasional HIC-based research to supplement areas in which LMIC evidence was not identified.

Literature Search Strategy

The literature search began with education research databases, journals, and gray literature⁴ sources (Education Sub-Saharan Africa, or ESSA, African Education Research Database; Education Resources Information Center, or ERIC; Google Scholar; EdTech Hub; *Africa Education Review*; *Compare*; *Comparative Education Review*; *International Journal of Educational Research*). These resources were searched for empirical education research papers with “coach” or “mentor” in the title or abstract and/or the terms for more targeted actions within the coaching cycle such as “feedback,” “reflection,” and “modeling.” When a surplus of papers was identified, to narrow the scope, these search terms were combined with terms from LMICs. Additionally, using a snowballing reference list tracing method, recent reviews/syntheses and systematic reviews from teacher professional learning literature were sought and reference lists in selected papers were consulted. Finally, the literature base was supplemented with papers recommended by expert advisors and reviewers.

Papers were reviewed and selected for an in-depth review based on three criteria: (1) topical relevance to the coaching cycle, (2) specific actions identified within the cycle, and (3) geographic regions starting with LMICs in which research was not available and then expanding to HIC contexts. All papers were read fully and given a score of 1 to 5 based on the 4 criteria below. The criteria were based on contextual and conceptual relevance and methodological rigor. Relevant insights and methodological limitations were extracted to create an evidence matrix. The evidence matrix was reviewed and synthesized, acknowledging the evidence weight.

The four criteria were (1) methodological rigor (systematic review, meta-synthesis, RCT, and/or qualitative research with well-documented and strong analytic method); (2) conceptual focus on coaching cycle, *Coach* principles, and behaviors; (3) LMIC context; and (4) published within the past 5 years.

Table A.1 Selection Criteria

Score	Criterion
5	All four criteria met.
4	Three of 4 criteria met.
3	Two of 4 criteria met with 1 criterion being either strong methodological rigor or conceptually relevant.
2	Methodologically limited (a) but offers specific insight from key behavior or aspect of coaching (b) OR key context (c).
1	Methodologically weak (a) and limited context (c) but provides insight or (b) perspective on key behavior or aspect of coaching.

4. “Grey literature” includes information from academia, government, and industry produced outside of traditional academic publishing channels. This information is not controlled by commercial publishing and, therefore, is not well represented in indexed databases. (From the Fourth International Conference on Grey Literature: New Frontiers in Grey Literature, GreyNet, Grey Literature Network Service, Washington, DC, 4-5 October 1999.) See also <https://www.greylit.org/about>.

Appendix B. Dissemination Materials

The World Bank hosted a brief presentation on this Technical Guidance Note by lead author, Tracy Wilichowski. She provided guidance on how pedagogical leaders can effectively carry out coaching sessions to support teacher learning and improvement. The presentation was followed by a moderated panel discussion led by Safaa El-Kogali that featured [Benjamin Piper](#), Director, Global Education Program, Bill and Melinda Gates Foundation. Mr. Piper provided firsthand insights on some of the challenges in implementing ongoing 1-1 teacher support at scale. Next, [Kwame Akyeampong](#), Professor of Education, Open University, described his research on teacher education in the Global South and the political economy that World Bank teams should consider when planning and implementing the type of guidance provided in this Note. Finally, Emily Gardner, World Bank Country Task Team Leader, shared insights on the opportunities and challenges in using these findings as part of government dialogue and implementation of World Bank projects. The following list summarizes the resources related to the event:

Table B.1 Reference Materials from the World Bank Event

To watch the full event ...	Watch the recording here .
To read a summary of the event ...	Review the slides here .
To read a summary of the Technical Guidance Note ...	Read the blog here .
To listen to a discussion of the Guidance Note ...	Listen to the podcast on Apple and Spotify .
To listen to a summary of the Guidance Note ...	Listen to a short summary video .
To learn more about the <i>Coach</i> program ...	Visit the website , watch a five-minute clip that summarizes the program, or check out our recent blogs here and here .

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